

In the Claims:

Please amend Claims 1, 11, 15-16, and 20; add Claims 25-28; and cancel Claims 4-5, 7, 14, 17, and 22, all as shown below. Applicant respectfully reserves the right to prosecute any originally presented claims in a continuing or future application.

1. (Currently Amended) A storage medium including software system applications for providing access to web services, comprising:

a container driver that accepts an invoke request for a web service from a client wherein the invoke request is a web service message having a message format;

a protocol adapter that

intercepts the invoke request,

converts the message format of the invoke request, and

creates an initial message context including the invoke request, a placeholder for a response, and information about a transport;

wherein the protocol adapter then passes the invoke request with the initial message context to the container driver;

an interceptor that

receives the initial message context for the invoke request for the web service from said container driver, the initial message context including a plurality of parts each of which includes corresponding content, and

modifies the content of one or more of the parts of the initial message context to produce modified message context for the web service, the modified message context including the same plurality of parts as the initial message context but with the content of one or more parts differing from the initial message context; ~~and,~~

an invocation handler that receives the modified message context from said container driver, passes parameters from the modified message context to the target of the request, processes values returned from the target, and passes the values to the container driver, such that the container driver can formulate a response to the invoke request; and

an invocation context that stores context data for processing the invoke request including a conversation ID, a message sequence number, and a security token, wherein the invocation context is an inheritable, thread local object, and wherein the invocation handler controls read/write access to the invocation context.

2. (Previously Presented) The storage medium of claim 1 wherein the client utilizes JAX-RPC to invoke the web services.
3. (Previously Presented) The storage medium of claim 1 wherein said container driver is adapted to perform any data binding and unbinding required to process the invoke request.
- 4-5. (Canceled)
6. (Previously Presented) The storage medium of claim 1, further comprising a plugin component to be used by said container driver to perform any data binding and unbinding.
7. (Canceled)
8. (Previously Presented) The storage medium of claim 1, wherein said invocation handler manages security policies, transaction management, and target object life cycle for the request.
9. (Previously Presented) The storage medium of claim 1, further comprising a web service container for hosting said container driver, said interceptor, and said invocation handler.
10. (Previously Presented) The storage medium of claim 1, further comprising a target object to which said invocation handler can delegate processing the invoke request.
11. (Currently Amended) A method for use in providing access to web services, comprising:  
accepting, at a container driver, an invoke request for a web service from a client;  
intercepting an invoke request from a web services client using a protocol adapter, wherein the invoke request is a web service message having a message format and wherein the protocol adapter  
converts the message format of the invoke request,  
creates an initial message context including the invoke request, a placeholder for a response, and information about a transport, and

then passes the invoke request with the initial message context to the container driver;

receiving [[an]] the initial message context for [[an]] the invoke request for a web service, the initial message context including a plurality of parts each of which includes corresponding content; and

modifying the content of one or more of the parts of the initial message context to produce modified message context for the web service, the modified message context including the same plurality of parts as the initial message context but with the content of one or more parts differing from the initial message context; and

storing, in an invocation context, context data for processing the invoke request including a conversation ID, a message sequence number, and a security token, wherein the invocation context is an inheritable, thread local object, and wherein an invocation handler controls read/write access to the invocation context.

12. (Previously Presented) The method of claim 11 wherein a client utilizes JAX-RPC to invoke the web service.

13. (Original) The method of claim 11 wherein a container driver is used to perform any data binding and unbinding required to process the invoke request.

14. (Canceled)

15. (Currently Amended) The method of claim 11, wherein the receiving and modifying steps are ~~performed~~ performed using an interceptor.

16. (Currently Amended) The method of claim 11, further comprising providing the modified message context to [[an]] the invocation handler that passes parameters from the modified message context to a target of the request, processes values returned from the target, and passes the values to a container driver, such that the container driver can formulate a response to the invoke request.

17. (Canceled)

18. (Original) The method of claim 11, further comprising managing life cycle, transaction, and security information for the processing of the invoke request.

19. (Original) The method of claim 11, further comprising delegating the processing of the invoke request to a target object.

20. (Currently Amended) A computer readable medium, including instructions stored thereon which when executed by the computer cause the computer to perform the steps of:

accepting, at a container driver, an invoke request for a web service from a client;

intercepting an invoke request from a web services client using a protocol adapter, wherein the invoke request is a web service message having a message format and wherein the protocol adapter

converts the message format of the invoke request,

creates an initial message context including the invoke request, a placeholder for a response, and information about a transport, and

then passes the invoke request with the initial message context to the container driver;

receiving, at an interceptor, the initial message context for the invoke request for the web service from the container driver, the initial message context including a plurality of-parts each of which includes corresponding content;

modifying, at the interceptor, the content of one or more of the parts of the initial message context to produce modified message context for the web service, the modified message context including the same plurality of parts as the initial message context but with the content of one or more parts differing from the initial message context;

receiving, at an invocation handler, the modified message context from the container driver;

storing, at an invocation context, context data for processing the invoke request including a conversation ID, a message sequence number, and a security token, wherein the invocation context is an inheritable, thread local object, and wherein the invocation handler controls read/write access to the invocation context

passing, from the invocation handler to a target of the request, parameters from the modified message context;

processing, at the invocation handler, values returned from the target;

passing the values from the invocation handler to the container driver; and

formulating, at the container driver, a response to the invoke request.

21. (Previously Presented) The storage medium of claim 1, wherein the plurality of parts for the initial message context and the plurality of parts for the modified message context each include a request message and a response message with a difference between the initial message context and the modified message context being the content of one or more of these parts.

22. (Canceled)

23. (Previously Presented) The storage medium of claim 7, wherein the interceptor reads and writes information on the invocation context.

24. (Previously Presented) The storage medium of claim 1, wherein the initial message context and the modified message context each include transport information, wherein the transport information comprises information specific to the transport over which the request came, and over which the response is sent.

25. (New) The storage medium of claim 1 wherein the protocol adapter receives data in response to the invoke request and returns the data to the client.

26. (New) The storage medium of claim 25 wherein the protocol adapter converts a message format of the data in response to the invoke request to match the message format of the invoke request.

27. (New) The method of claim 11 wherein the protocol adapter receives data in response to the invoke request and returns the data to the client.

28. (New) The method of claim 27 wherein the protocol adapter converts a message format of the data in response to the invoke request to match the message format of the invoke request.